

Please amend the subject application as follows:

IN THE CLAIMS

Amend claims 1, 11, 16, 40, 41 and 42 to read as follows:

1. (AMENDED) An imaging system for invasive therapy of a patient, the system comprising:

B1 an imaging apparatus that can provide a cross-sectional image of a patient;

a medical instrument comprising a fiducial object that can be simultaneously imaged in the same image as a targeted site of the patient.

B2 11. (TWICE AMENDED) The system of any one of claims 1 through 10 wherein the system further comprises a robotic apparatus capable of positioning the medical instrument.

16. (AMENDED) A method for guiding invasive therapy in a patient, comprising:

B3 a) providing a system that comprises an imaging apparatus and a medical instrument comprising a fiducial object that can be simultaneously imaged in the same image as a targeted site of the patient;

b) obtaining a cross-sectional image that comprises both the fiducial object and the targeted site of the patient; and

c) manipulating the instrument with respect to the patient using information derived from the image.

B4 40. (AMENDED) An imaging system for invasive therapy of a patient, the system comprising:

an imaging apparatus that can provide a cross-sectional image of a patient;

a medical instrument comprising a fiducial object that can be simultaneously imaged in the same cross-sectional image as a targeted site of the patient, the image producing three

identifiable points to coordinate pose of the instrument and the targeted site of the patient; and  
a control apparatus that can register the instrument in detected image space and calculate instrument movement.

41. (AMENDED) A method for guiding invasive therapy in a patient, comprising:

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- a) providing a system that comprises i) an imaging apparatus, ii) a medical instrument comprising an associated fiducial object that can be simultaneously imaged in the same cross-sectional image as a targeted site of the patient, and iii) a control apparatus that can, via input from the imaging apparatus, register the instrument in detected image space and calculate instrument movement;
  - b) obtaining a cross-sectional image that comprises both the fiducial object and the targeted site of the patient, the image producing three identifiable points to coordinate pose of the instrument and the targeted site of the patient; and
  - c) based on input from the control apparatus, manipulating the instrument with respect to the patient using information derived from the image.

42. (AMENDED) A method for guiding invasive therapy in a patient, comprising:

- a) providing a system that comprises i) an imaging apparatus, ii) a medical instrument comprising an associated fiducial object that can be simultaneously imaged in the same cross-sectional image as a targeted site of the patient;
  - b) obtaining a cross-sectional image that comprises both the fiducial object and the targeted site of the patient, a single image providing information sufficient to coordinate pose of the instrument and the targeted site of the patient; and
  - c) manipulating the instrument with respect to the patient using information derived from a single cross-sectional image.
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